
Stem cells model heart disease, test drugs

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Nature has a story that features a promising use for stem cells, and also provided a creative outlet for whoever is writing headlines over there: "Cells snag top modelling job".

Nature isn't covering America's top model. They're talking about modeling disease, in this case a heart condition called long QT syndrome. Both embryonic or iPS cells can be matured into any adult cell type. If those cells carry mutations that cause disease then they'll mature into adult cell types that, in some cases, display that disease.

For something like long QT syndrome, in which the heart tissue has an altered beat, stem cells carrying a mutation that causes the condition provide the only way of testing drugs in a lab. The story mentions Mike Venuti, president of CIRM-funded biotech company iPerian:

“ His firm has made iPS cells from people with Alzheimer's disease, Parkinson's disease and type 2 diabetes and converted them into various cell types for drug screening. He expects that drugs identified using this method will reach clinical trial for conditions such as spinal muscular atrophy in the next few years.

CIRM funds work by Bruce Conklin at the Gladstone Institute of Cardiovascular Disease, who is taking cells from people with heart conditions, creating iPS cells, and using those cells to study the condition and test drugs. This video features Conklin discussing his cells' top modeling work.

- A.A.

Tags: Conklin, Heart Disease, Gladstone Institute

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